REMARKS

I. Introductory Comments.

Claims 16-53 were previously pending in the Subject Application. Upon entry of this Amendment, claims 16-35, 40 and 53 will be pending; claims 16 and 26 are independent claims. Claims 36, 37 and 41-52 were previously withdrawn from consideration as directed to a non-elected invention. Claims 36-39 and 41-52 are canceled herein without prejudice or disclaimer. Claims 16-35, 38-40 and 53 are currently under examination on the merits.

In the pending Office Action, claims 16-35, 38-40 and 53 stand rejected under 35 U.S.C §112, first paragraph, written description and enablement; and second paragraph, definiteness. In addition, claims 16-35, 38-40 and 53 stand rejected under 35 U.S.C §102(b) as allegedly anticipated by U.S. Patent No. 5,984,997 to Bickmore et al. ("Bickmore").

Applicant respectfully traverses all of the rejections. In view of the amendments and remarks set forth herein, Applicant respectfully requests reconsideration and withdrawal of the rejections and allowance of the pending claims.

II. Claim Amendments.

Claims 36-39 and 41-52, are canceled herein without prejudice or disclaimer to the subject matter contained therein. Independent claim 16 is amended herein to recite:

> A method of forming a non-stoichiometric nanoscale powder having one or more modified properties comprising:
>
> selecting a powder form of a stoichiometric metal compound comprising at least one metal and at least one element selected from the group consisting of: C, O, N, B, S, H, Se, Te, In, Sb, Al, Ni, F, P, Cl, Br, I, Si, and Ge;
>
> adding at least one dopant element to the metal compound to form a mixture, wherein the at least one dopant element has a valency different than a valency of an electropositive element in the metal compound;
>
> processing the mixture at a temperature greater than the solid state reaction temperature of the mixture to produce a non-stoichiometric nanoscale powder form of a substance comprising the at least one dopant element and the metal compound, wherein the at least one dopant element is combined in the lattice of the metal compound and wherein the resulting compound comprises three or more elements;
>
> wherein combining the at least one dopant element into the lattice of the metal compound modifies at least one property of the metal compound; and
>
> the nanoscale powder form of the substance is substantially compositionally uniform.

Independent claim 26 is amended herein in like manner. Support for the amendments to independent claims 16 and 26 may be found in the specification of the Subject Application, for example, in paragraphs [0012] and [0118] (referring to the substitute specification filed 30-April-2004). In addition, claims 20-23, 30-33, 40 and 53 are amended herein to maintain consistency in the present claim terminology. It is respectfully submitted that the amendments add no new matter to the Subject Application.

III. Claim Rejections under 35 U.S.C. §112.

Claims 16-35, 40 and 53 stand rejected under 35 U.S.C §112, first paragraph, written description and enablement; and second paragraph, definiteness. The respective rejections are addressed under separate headings below.

A. Written Description.

The Office maintains that the specification of the Subject Application does not provide sufficient written description to convey to a person having ordinary skill in the art that the present inventors had possession of the claimed subject matter at the time the Subject Application was filed. Specifically, the Office objects to the recitation of the elements hydrogen, indium, antimony, aluminum, nickel, silicon and germanium in claims 16 and 26 because "one skilled in the art would [allegedly] not know how to practice the claimed method by incorporating" these elements, which the Office asserts are not disclosed in the specification. Applicant respectfully disagrees.

The present claims are directed to a method of forming a non-stoichiometric nanoscale powder from a stoichiometric powder. Claims 16 and 26 recite "selecting a powder form of a *stoichiometric* metal compound comprising at least one metal and at least one element selected from the group consisting of C, O, N, B, S, H, Se, Te, In, Sb, Al, Ni, F, P, Cl, Br, I, Si, and Ge" (emphasis added). This exact same list of elements is disclosed in paragraph [0064] of the specification in the context of stoichiometric materials. In addition, paragraph [0089] of the specification describes doped nanomaterials of composition: $d_1 - M_1M_2X$, where d_1 is a dopant,

M_1 and M_2 are metals, and X is an anion. "Elements dopant d_1 . . . are selected from the group consisting of the s group, p group, d group, or f group of the periodic table . . ." (specification, para. [0089]). The elements H, In, Sb, Al, Si and Ge are all p group elements, and Ni is a d group element. Thus, the specification provides direct written description support for these elements as constituents of stoichiometric metal compounds.

B. Enablement.

The Office Action contains two (2) separate grounds for rejection under 35 U.S.C. §112, first paragraph, enablement. The respective enablement rejections are addressed under separate headings below.

1. Elements H, In, Sb, Al, Ni, Si and Ge.

The Office maintains that the specification of the Subject Application does not enable a person having ordinary skill in the art to implement the claimed method because "one skilled in the art would [allegedly] not know how to practice the claimed method by incorporating [allegedly] non-disclosed elements H, In, Sb, Al, Ni, Si and Ge." Applicant respectfully disagrees. As discussed above, the present claims are directed to a method of forming a non-stoichiometric nanoscale powder from a stoichiometric metal compound. The specification provides extensive detail regarding methods of forming non-stoichiometric nanoscale powders, including description of stoichiometric starting materials given by the formula: M_nZ_p, "where Z can be any element from the p, d, and f groups of the periodic table (illustrations include: C, O, N, B, S, H, Se, Te, In, Sb, Al, Ni, F, P, Cl, Br, I, Si, and Ge)" (specification, para. [0064]).

The standard for determining whether the specification meets the enablement requirement was established in the Supreme Court decision of *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916), which set forth the operative question: is the experimentation needed to practice the invention undue or unreasonable? The "undue experimentation" standard is still the one to be applied, and requires that the claimed invention be enabled so that a person skilled in

the art can make and use the invention without undue experimentation. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

"The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988). The fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation. *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404. The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, is it undue? MPEP § 2164.

The methods of forming non-stoichiometric nanoscale powders disclosed in the Subject Application and recited in the present claims are applicable to any suitable stoichiometric starting material comprising at least one metal and at least one element selected from the group consisting of p, d, and f periodic table group elements. In this regard, based on the disclosure in the specification, a person having ordinary skill in the art would be readily capable of extending the disclosed methods to any suitable stoichiometric starting material. Indeed, little, if any, experimentation would be required to practice the claimed method because the critical processing parameters are described in the specification (see, for example, specification, para. [0097], [0117], [0118]; and Examples 9 and 10). Therefore, it is respectfully submitted that the method recited in claims 16 and 26 (and the respective dependent claims) is enabled for stoichiometric starting materials comprising at least one metal and at least one element selected from the group consisting of C, O, N, B, S, H, Se, Te, In, Sb, Al, Ni, F, P, Cl, Br, I, Si, and Ge.

2. <u>High Temperature Processing and Combustion.</u>

The Office maintains that the specification of the Subject Application does not enable a person having ordinary skill in the art to implement the claimed method because the specification allegedly only enables a process comprising combustion of an emulsion to prepare nanoscale particles; therefore, a person having ordinary skill in the art allegedly is not able to

practice the method commensurate in scope with the claims. Applicant respectfully disagrees.

The specification discloses numerous methods for processing a mixture comprising a dopant element and a stoichiometric metal compound at a temperature greater than the solid state reaction temperature of the mixture, as recited in the present claims. By way of example, suitable processing methods include, but are not limited to, heating the mixture in an inert atmosphere to a temperature greater than the solid state reaction temperature, heating the mixture in an oxidizing atmosphere to a temperature greater than the solid state reaction temperature, and heating the mixture in a reducing atmosphere to a temperature greater than the solid state reaction temperature (specification, para. [0115], [0117]). Additional processing methods, such as, for example, chemical reaction, electromagnetic field treatment, ion beam treatment, electron beam treatment, photonic treatment, plasma treatment and rapid quench are described in paragraph [0115]. A person having ordinary skill in the art would readily recognize and understand how to implement such treatment techniques in order to process the mixture at a temperature above the solid state reaction temperature, as described in the specification.

In addition, suitable processing methods are also described in detail in United States Patent Nos. 5,788,738; 5,851,507; and 5,984,997, all of which were incorporated by reference into the specification of the Subject Application (specification, para. [0088], [0097] and [0116]). For example, US-5,778,738 ("the '738 patent") describes a thermal reactor system for the production of nanopowders by ultra-rapid thermal quench processing of high-temperature vapors through a boundary layer Joule-Thompson nozzle (c.4, ll.8-12). In the system described in the '738 patent, a feed stream of a precursor material is premixed with a feed gas stream in a mixing apparatus to form a suspension (c.6, ll.1-8). According to embodiments of the method recited in the present claims, the precursor material to the '738 system may comprise a powder form of a stoichiometric metal compound and a dopant powder (specification, para. [0116]). The gas-stream powder suspension would be fed to a thermal reactor and at least partially vaporized in a thermal evaporation zone (c.6, ll.11-21). The at least partial vaporization would occur at a temperature greater than the solid state reaction temperature of the mixture. The vaporized gas-stream suspension would then enter a reaction zone and a nucleation zone, which would thermokinetically favor the nucleation of solid powders from the vaporized precursors (c.6, ll.26-

33). As soon as nucleation of the vapor commences, the gas-stream suspension would be quenched in converging-diverging nozzle-drive adiabatic expansion chamber (c.7, ll.2-4). In this regard, according to embodiments disclosed in the Subject Application, the nucleation and quench kinetics would be engineered to produce compositionally uniform or gradient non-stoichiometric nanoscale powders comprising the dopant element combined into the lattice structure of the metal compound. A similar processing method is described in US-5,851,507.

Another exemplary processing method is described in US-5,984,997 ("the '997 patent"), which teaches mixing an emulsion comprising all of the elements of a desired powder composition and a combustible fuel, and then combusting that emulsion to produce the powder (c.4, l.1 - c.6, l.36). According to embodiments disclosed in the Subject Application, the combustion described in the '997 patent may be engineered to produce temperatures greater than the solid state reaction temperature, and optionally, quenched to control the kinetics of the system to produce compositionally uniform or gradient non-stoichiometric nanoscale powders comprising the dopant element combined into the lattice structure of the metal compound.

In view of the disclosure in the Subject Application, it is respectfully submitted that persons having ordinary skill in the art are readily capable of applying any number of processing techniques to mixtures comprising at least one dopant element and a stoichiometric metal compound powder in order to produce a substance comprising the dopant(s) combined into the lattice of the metal compound as recited in claims 16, 26 and the respective dependent claims.

C. Definiteness.

The Office maintains that the claims are indefinite for various reasons. Applicant respectfully disagrees and addresses each reason under a separate heading below.

1. "Creating a composition of matter" in claims 16, 20-23, 26, 30-33 and 54.

The Office objects to the term "creating a composition of matter" in claims 16, 20-23, 26, 30-33 and 54. Applicant respectfully submits that the amendments submitted herein

render this objection moot.

2. "Compositionally uniform" in claim 16.

The Office objects to the term "compositionally uniform" in claim 16 because it is allegedly unclear how a mixture comprising a metal compound and a dopant can form a compositionally uniform nanopowder just by heating. In this regard, Applicant respectfully reminds the Office that the scope of claims in patent applications is not determined solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005), citing *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004). Indeed, no claim may be read apart from and independent of the supporting disclosure on which it is based. *In re Cohn*, 438 F.2d 989, 169 USPQ 95 (CCPA 1971).

In the various non-limiting embodiments where the metal compound and dopant mixture are heated to greater than the solid state reaction temperature, the metal compound would be in nanoscale powder form before the high temperature processing. Applicant respectfully submits that if a mixture comprising a nanoscale stoichiometric metal powder and a dopant element are heated to a temperature greater than the solid state reaction temperature, then the dopant element and at least one electropositive constituent of the metal compound will intermingle, at the very least, through solid-state diffusion, in which case the dopant element will at least partially dissolve in the metal compound lattice structure.

In the various non-limiting embodiments where the mixture is vaporized or combusted to a temperature greater than the solid state reaction temperature, the metal compound does not necessarily have to be in nanoscale powder form before the high temperature processing. The dopant element will combine with the metal compound when the starting materials are in the vapor or combusted state. When the resulting material combination is nucleated and/or quenched to nanoscale dimensions, the dopant element will be combined into the lattice structure of the metal compound. In various embodiments, if the mixture is processed

above the solid state reaction temperature for a sufficient period of time, then the dopant will reach an equilibrium distribution throughout the metal compound lattice, which will result in a "compositionally uniform" distribution in the resulting non-stoichiometric nanoscale powder (see, for example, specification, para. [0097]).

3. "Gradient composition" in claims 26.

The Office apparently (although not explicitly) objects to the term "gradient composition" in claim 26 because it is allegedly unclear how a mixture comprising a metal compound and a dopant can form a nanopowder exhibiting a gradient composition just by heating. In various embodiments, the Subject Application clearly teaches that if the mixture is processed above the solid state reaction temperature for a sufficiently short period of time, then the dopant will fail to reach an equilibrium distribution throughout the metal compound lattice, which will result in a non-uniform composition in the resulting non-stoichiometric nanoscale powder. In this regard, the resulting non-stoichiometric nanoscale powders can be engineered to form gradient compositions by quenching prior to the formation of an equilibrium distribution of the dopant element in the metal compound. Accordingly, it is submitted that the term "gradient composition" is clear and fully supported by the specification.

4. "High temperature processing" in claims 16 and 26.

The Office objects to the term "high temperature processing" in claims 16 and 17. Applicant respectfully submits that the amendments submitted herein render this objection moot.

5. "Heating" in claims 20 and 30.

The Office objects to the term "heating" in claims 20 and 30 because it allegedly lacks antecedent basis and it is allegedly unclear where the heating step fits in the recited process as a whole. Applicant respectfully submits that the amendments submitted herein render this objection moot. The heating step may be employed to increase the temperature of the mixture to

greater than the solid state reaction temperature.

6. "Plasma processing" in claims 22 and 32.

The Office objects to the term "plasma processing" in claims 22 and 32 because it allegedly lacks antecedent basis and it is allegedly unclear where the plasma processing step fits in the recited process as a whole. Applicant respectfully submits that the amendments submitted herein render this objection moot. The plasma processing step may be employed to increase the temperature of the mixture to greater than the solid state reaction temperature.

7. "Quench step" in claims 23 and 33.

The Office objects to the term "quench step" in claims 23 and 33 because it allegedly lacks antecedent basis and it is allegedly unclear where the quench step fits in the recited process as a whole. Applicant respectfully submits that the amendments submitted herein render this objection moot. As discussed above, the quench step may be employed to decrease the temperature of the mixture from greater than the solid state reaction temperature. In this regard, for example, the resulting non-stoichiometric nanoscale powders can be engineered to form gradient compositions by quenching the high-temperature processing prior to the formation of equilibrium distribution of the dopant elements in the metal compound.

In view of the remarks set forth above, Applicant respectfully submits that a person having ordinary skill in the art would readily recognize that the present Inventors had possession of the method recited in claims 16, 26, and the respective dependent claims. Furthermore, a person having ordinary skill in the art would be sufficiently enabled and readily capable of practicing the disclosed method commensurate in scope with the present claims. Moreover, a person having ordinary skill in the art would readily understand the scope of the method recited in the present claims, and would recognize that the method is particularly pointed out and distinctly claimed. Therefore, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. §112.

IV. Claim Rejections under 35 U.S.C. §102(e) in view of Bickmore.

A claim is anticipated only if each and every feature as set forth in the claim is found, either expressly or inherently described, in a single prior art reference, arranged as required by the claim, and in as complete detail as is contained in the claim. *See* MPEP §2131. The Office rejects claims 16-35, 40 and 53 as anticipated by Bickmore. Applicant respectfully submits, however, that Bickmore fails to disclose each and every element of the pending claims, arranged as required by the claims, and in as complete detail as is contained in the claims.

Bickmore discloses preparing emulsions comprising precursor elements and the combustion of the emulsion to produce a nanoscale powder comprising the precursor elements. As discussed above in connection with 35 U.S.C. §112, Bickmore (the '997 patent) discloses an exemplary high-temperature processing method that may be employed as part of the method recited in claims 16 and 26; however, Bickmore does not describe all of the features of claims 16 and 26. For example, while Bickmore generally discloses that one or more dopants can be added to the emulsions disclosed therein, Bickmore does not disclose the selection of a dopant element such that the dopant element has a valancy different than a valancy of an electropositive element in a metal compound to which the dopant is to be added, as recited in claims 16 and 26. This is not an inherent feature of the disclosure in Bickmore, but rather is a novel and inventive aspect of the method recited in claims 16 and 26. Furthermore, Bickmore does not describe the selection of a powder form of a stoichiometric metal compound as a starting material to produce a doped non-stoichiometric substance, but rather, the reference discloses "selecting a metal salt, an organometallic, a solvent, a combustible carrier fluid and/or a surfactant" (Bickmore, c.6, ll.25-27).

Moreover, Bickmore does not describe a method comprising processing a mixture at a temperature greater than the solid state reaction temperature of the mixture such that at least one dopant element is combined in the lattice of a metal compound, thereby modifying at least one property of the metal compound, as recited in claims 16 and 26. Bickmore provides no description of the functionality of a dopant in terms of modification of the properties of a stoichiometric metal compound, or the formation of non-stoichiometric nanoscale powders from

stoichiometric powder starting materials. Indeed, Bickmore does not mention lattice structure in any capacity.

Because the hallmark of anticipation is prior invention, a prior art reference – in order to anticipate under 35 U.S.C. § 102 – must not only disclose all elements of the claims within the four corners of the document, but must also disclose those elements arranged as in the claim. *Net MoneyIn, Inc. v. Verisign, Inc.*, No. 2007-1565 (Fed. Cir. 10/20/2008). In other words, in order to anticipate, a reference must disclose the same invention as is claimed. Bickmore does not disclose the all of the steps of the method recited in claims 16 and 26 in as complete detail as is contained in the claims. Therefore, Bickmore cannot anticipate the present claims.

Applicant does not otherwise concede, however, the correctness of the rejections with respect to any of the dependent claims not discussed above. Accordingly, Applicant hereby reserves the right to make additional arguments as may be necessary to further distinguish the dependent claims from the cited reference based on additional features contained in the dependent claims that were not discussed above. A detailed discussion of these differences is believed to be unnecessary at this time in view of the differences in the claims pointed out above.

V. Possible Claim Rejections under 35 U.S.C. §103(a) in view of Bickmore.

In view of the fact that Bickmore fails to anticipate the present claims, the Office may seek to reject the present claims under 35 U.S.C. §103(a) as unpatentable over Bickmore, alone or in combination with other prior art references. However, Applicant respectfully reminds the Office that 35 U.S.C. §103(c) precludes the application of Bickmore against the present claims in a rejection under 35 U.S.C. §103(a). In particular, Bickmore qualifies as prior art against the Subject Application under 35 U.S.C. §102(e). In addition, at the time the claimed invention was made, the subject matter disclosed and claimed in Bickmore and the subject matter disclosed and claimed in the Subject Application, were owned by the same entity or subject to an obligation of assignment to the same entity, namely Nanomaterial Research Corporation, Longmont, CO, or a successor entity in privity therewith.

Applicant submits that Nanomaterial Research Corporation has the following history, which can be readily verified from the USPTO assignment records for U.S. Patent No. 5,984,997 (Bickmore):

NANOMATERIALS RESEARCH CORPORATION
249 EAST ELVIRA ROAD
TUCSON, ARIZONA 85706

NANOMATERIALS RESEARCH, LLC
2620 TRADE CENTER AVENUE
LONGMONT, COLORADO 80503

NANOENERGY CORPORATION, a Delaware corporation
14430 LONGS PEAK CT.
LONGMONT, COLORADO 80503

NANOPRODUCTS CORPORATION
14430 LONGS PEAK CT.
LONGMONT, COLORADO 80503

KOCH NANOMATERIAL, LLC, BY KOCH GENESIS COMPANY, LLC
4111 EAST 37TH STREET NORTH
WICHITA, KANSAS 67220

NANOPRODUCTS CORPORATION
14430 LONGS PEAK CT.
LONGMONT, COLORADO 80503

PPG INDUSTRIES OHIO, INC
3800 WEST 143RD STREET
CLEVELAND, OHIO 44111

The Subject Application has an analogous history, which can also be readily verified from USPTO assignment records. Accordingly, the subject matter disclosed in Bickmore cannot preclude patentability under 35 U.S.C. § 103(a), and the reference is effectively disqualified as prior art for purposes of 35 U.S.C. § 103(a).

VI. Status of Related Patent Applications

The Subject Application is a divisional of U.S. Patent Application No. 10/499,278 filed May 20, 2003, now U.S. Patent No. 6,830,822, which is a divisional of Application No. 10/150,722, filed May 17, 2002, now U.S. Patent No. 6,602,595, and is a divisional of Application No. 09/274,517, filed March 23, 1999, now U.S. Patent No. 6,344,271, which claims

the benefit of U.S. Provisional Patent Application No. 60/107,318, filed November 6, 1998.

The Subject Application is also a continuation-in-part of Application No. 09/790,036, filed February 20, 2001, now U.S. Patent No. 6,933,331, which is a divisional of Application No. 09/083,893, filed May 22, 1998, now U.S. Patent No. 6,228,904, which claims the benefit of U.S. Provisional Patent Application Nos. 60/049,077, filed June 9, 1997, 60/069,935, filed December 17, 1997 and 60/079,225, filed March 24, 1998. Application No. 09/083,893 is a continuation-in-part of Application No. 08/739,257, filed October 30, 1996, now U.S. Patent No. 5,905,000, which is a continuation-in-part of Application No. 08/730,661, filed October 11, 1996, now U.S. Patent No. 5,952,040, which is a continuation-in-part of Application No. 08/706,819, filed September 3, 1996, now U.S. Patent No. 5,851,507, and Application No. 08/707,341, filed September 3, 1996, now U.S. Patent No. 5,788,738.

The Subject Application is also a continuation-in-part of Application No. 09/753,806, filed January 3, 2001, now U.S. Patent No. 6,513,362, which is a divisional of Application No. 09/074,534, filed May 7, 1998, now U.S. Patent No. 6,202,471, which claims the benefit of U.S. Provisional Patent Application Nos. 60/061,718, filed October 10, 1997, and 60/068,121, filed December 19, 1997.

The Office's attention is also directed to the following pending applications, which may contain subject matter related to the subject matter disclosed in the Subject Application.

Application No.	Filing Date	Status Date	Status
10/315,272	Dec 10, 2002	Sep 5, 2008	Final Rejection mailed
10/435,222	May 9, 2003	Oct 29, 2008	Final Rejection mailed
10/679,611	Oct 6, 2003	Oct 29, 2008	Reply Brief Forwarded to Examiner
10/698,564	Oct 31, 2003	Nov 18, 2008	Non-final Office Action mailed
10/698,577	Oct 31, 2003	Oct 21, 2008	Final Rejection mailed
10/811,628	Mar 29, 2004	Oct 17, 2008	Non-final Office Action mailed
10/898,849	Jul 26, 2004	Nov 18, 2008	Response to non-final Office Action entered and forwarded to examiner

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10/899,595	Jul 27, 2004	Nov 16, 2008	Response to non-final Office Action entered and forwarded to examiner
11/068,714	Mar 1, 2005	Sep 29, 2008	Non-final Office Action mailed
11/157,164	Jun 21, 2005	Nov 26, 2008	Response to non-final Office Action entered and forwarded to examiner
11/808,766	Jun 12, 2007	Oct 3, 2008	Non-final Office Action mailed
11/812,550	Jun 20, 2007	Nov 5, 2008	Non-final Office Action mailed
12/000,310	Dec 11, 2007	--	Docketed new case - ready for examination
12/081,115	Apr 10, 2008	--	Docketed new case - ready for examination

In addition, the Office's attention is also directed to the following issued patents, which may contain subject matter related to the subject matter disclosed in the Subject Application: 5,788,738; 5,851,507; 5,905,000; 5,984,997; 6,202,471; 6,228,904; 6,344,271; 6,387,560; 6,531,704; 6,569,397; 6,602,595; 6,610,355; 6,652,967; 6,719,821; 6,736,463; 6,746,791; 6,830,822; 6,832,735; 6,849,109; 6,855,426; 6,855,749; 6,916,872; 6,933,331; 7,007,872; 7,029,507; 7,081,267; 7,178,747; 7,183,337; 7,238,734; 7,250,454; 7,306,822; 7,387,673; and 7,388,042.

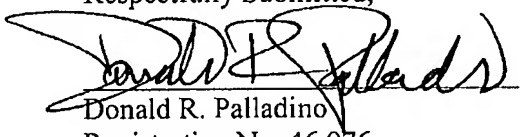
VII. Conclusion

Accordingly, for at least the reasons set forth above, pending claims 16-35, 40 and 53 are supported, enabled, and definite. The claims are also novel in view of the reference cited in the Office Action. Therefore, Applicant requests favorable reconsideration of the Subject Application.

The present cancellations and amendments are made without prejudice or disclaimer to the subject matter of the claims as originally filed or as previously presented. Applicant reserves the right to pursue the subject matter of the canceled non-elected claims in one or more divisional applications under 35 U.S.C. §121. In addition, Applicant does not acquiesce or otherwise concede the correctness of any rejections to the original or previously presented claims asserted by the Office in the Subject Application. Accordingly, Applicant

hereby reserves the right to pursue the subject matter of the claims as originally filed or as previously presented in the Subject Application in related applications that may be currently on file or filed at a later date. Moreover, Applicant hereby reserves the right to submit arguments made in connection with the Subject Application in any related or future applications. The amendments presented herein are solely made to expedite the prosecution of the Subject Application.

Respectfully Submitted,



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